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REMARKS

Claims 1-15 are pending in this application with Claims 12-15 withdrawn from consideration. The foregoing amendment amends Claim 1, which is an independent claim, and Claim 7.

Claims 1-11 are Properly Described in the Specification

The Examiner rejected Claims 1-11 under 35 U.S.C. §112, first paragraph alleging that the claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or which it is most nearly connected, to make and/or use the invention or in such a way as to convey that the inventor had possession of the claimed invention. In particular, the Examiner alleged that the specification does not describe the range of proportions of titanium oxide, kaolin, plastic raw material and thickening agent. The Examiner also alleged that the specification does not describe the materials needed to form the binder, the thickening agent, or the plastics raw material.

Claim 1 requires that the thickening agent include a binder. The specification describes two examples of binders. The first example is a binder blended with waste paper. Paper from telephone directories or encyclopedias can be used as the waste paper. A mixture of 0.5 to 2 kg of binder and 300 to 700 g of waste paper is agitated in a mixing tank. Subsequently, 300 to 700 g of perlite having diameters of 1 to 5 mm are put in the mixing tank and the mixture is agitated to form a gel. The gel is poured into a molding box and pressure is applied to evaporate the moisture. The gel is air dried for 1 to 10 days and then forced dried using heat between 80 C to 200 C. Paragraphs [00130 - 00132].

The second example of a binder is blended with charcoal. The charcoal is formed into a range of grain sizes from 0.5 to 1 cm. A mixture of 1 to 1.5 kg of the charcoal after grain size adjustment and 2 to 3 kg of the binder is agitated in a mixing tank. Subsequently, 100 to 300 g of perlite and 500 to 800 g of kaolin are added and the mixture is further agitated to form a gel. The gel is poured into a molding box and pressure is applied to

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evaporate the moisture. The gel is air dried for 1 to 10 days and then forced dried using heat between 80 C to 200 C so that the water content is reduced to approximately 0.01% to 5%.

Paragraphs [00133-00135].

The binder for either example can be made of sodium silicate, potassium silicate, silicon dioxide, amorphous silica, bentonite and a plastic raw material (clay powder including carbonized charcoal and kaolinite). Paragraph [00142].

The specification describes that the plastic raw material is a clay powder including carbonized charcoal and kaolinite, as well as halloysite, quartz, montmorillonite, and illite. Paragraph [107]. A mixture of 20-25 kg of the thickening agent and 2 to 5 kg of the titanium oxide powder is agitated for 5 to 10 minutes. Subsequently 3 to 7 kg of kaolin powder is divided and added and the mixture is agitated for 15 to 20 minutes. Paragraph [00108]. The specification describes that after the thickening agent, titanium oxide, kaolin and plastic raw material are mixed, then 7 to 15 kg of the aluminum oxide powder is added to the mixing tank. Paragraph [00077].

The Examiner alleged that the specification does not describe how high in protein the high-protein powder must be or the relative proportions of water, caustic soda, high protein powder, polyvinyl acetate and glycerin. The Examiner also alleged that the specification does not describe the ceramic powder.

The specification describes that the high-protein powder has the contents per 100 g as shown in Fig 15 and as follows: approximately 11.7 g of protein, 1.8 g of lipid, 71.4 g of glucide, 0.2 g of fiber, and 0.4 g of ash. A grain which contains minute amounts of inorganic materials, such as calcium, phosphorus, iron, sodium, and potassium can be used as the high-protein powder. Paragraph [00078]. The specification describes that silica sand, alumina, and titanium oxide can be used as the ceramic powder. Although the specification uses the phrase "and the like" in connection with the ceramic powder, the phrase is used to indicate that the ceramic powder is not limited to the list of materials provided and that additional materials can also be used as the ceramic powder.

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The Examiner alleged that the specification does not describe how normally insoluble materials, such as titanium oxide, aluminum oxide, kaolin and ceramic powder may be made water soluble, as required at page 24, line 18. The specification describes the process for creating the mixture of a nonmetal coating material according to a first embodiment, which results in a water-soluble material. Claim 1 does not expressly recite a water soluble material.

In light of the foregoing, it is submitted that the specification adequately describes Claims 1-11.

Claims 1-11 are Definite

The Examiner rejected Claims 1-11 under 35 U.S.C. §112, second paragraph, alleging that the claims are indefinite. In particular, the Examiner alleged that the claims are incomplete since an incineration step is not positively recited and the scope and meaning of the terms "high", "ceramic powder", "thickening agent", "plastic raw material", "adhesive", and "high-protein powder" are indefinite. The Examiner also alleged that the phrase "mixture powder" at line 8 of Claim 1 has no antecedent basis.¹ As discussed in the preceding paragraphs, the terms cited by the Examiner are defined in the specification and are definite. The foregoing amendment to Claim 1 clarifies that when the coating material obtained according to the claim is dried and heated and that the incinerated coating material comprises the recited elements.

The Examiner also alleged that Claims 7, 10 and 11 are inconsistent with Claim 1. The foregoing amendment amends Claim 7. Claim 1 recites a percentage by weight for potassium and silicon for the coating material, but Claims 10 and 11 recite a percentage by weight for potassium relative to silicon. Although Claim 1 and Claims 10 and 11 use a different base for the percentage by weight, the recitations of the claims are consistent.

In light of the foregoing, it is submitted that Claims 1-11 are definite.

¹ It is believed that the Examiner intended to cite line 8 of Claim 1 rather than line 8 of Claim 11 since Claim 11 does not have eight lines.

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CONCLUSION

The foregoing is submitted as a complete response to the Office Action identified above. This application should now be in condition for allowance, and the Applicants solicit a notice to that effect. If there are any issues that can be addressed via telephone, the Examiner is asked to contact the undersigned at 404.685.6799.

Respectfully submitted,



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